

# AN IMPROVEMENT ON A POWDER BOX

## BACKGROUND OF THE INVENTION

### 5 1. Field of the invention

The present invention relates to a powder box, more particularly one, which can be easily opened with single hand.

### 2. Brief Description of the Prior Art

10 Cosmetics are among the important beauty products in female market. Therefore, a wide variety of containers have been developed for cosmetics, and it is a constant effort of the cosmetics industry to develop novel containers for attracting the consumers.

Referring to Fig. 7, a conventional powder box includes a containing part 41, and a cover 42 pivoted to the containing part 41.  
15 Several separate holding spaces 412 are provided in the containing part 41 for holding different powders therein. The containing part 41 further has an engaging protrusion 411 at the edge. The cover 42 has a hook 421 such that when it is closed, the hook 421 will engage the engaging protrusion 411 to secure the cover to the containing part 41.

20 However, the cosmetics container is not convenient to use because to open the container, the user has to hold the containing part 41 with one hand, and the cover 42 with the other, and displace the cover 42 relative to the containing part 41 with certain force for the hook 421 to disengage the protrusion 411. In addition, the form of cosmetics

containers that is comprised of a containing part, and a cover pivoted to the containing part has existed for a long time, and can't satisfy people needs for variety any longer.

## 5 SUMMARY OF THE INVENTION

It is a main object of the present invention to provide a powder box, which is convenient to use, and novel.

The powder box of the present invention includes a housing, a gear,  
10 and containing part. The housing has a gap, and a pivotal post formed near to the gap therein. The gear can turn on the pivotal post of the housing, and projects outwards from the gap of the housing. The containing part has a holding room for containing powder therein, and is held in, and displaceable relative to, the housing with a rack thereof  
15 engaging the gear such that it can be made to project outwards from an opening of the housing by means of operating the gear.

## BRIEF DESCRIPTION OF THE DRAWINGS

20 The present invention will be better understood by referring to the accompanying drawings, wherein:

Fig. 1 is an exploded perspective view of the powder box according

to the present invention,

Fig. 2 is a perspective view of the containing part of the powder box of the present invention,

Fig. 3 is a perspective view of the powder box of the present  
5 invention,

Fig. 4 is a horizontal section of the powder box of the present invention,

Fig. 5 is a vertical section of the powder box of the present invention,

10 Fig. 6 is a perspective view of the powder box of the present invention in the opened position, and

Fig. 7 is a perspective view of the conventional powder box.

## DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

15

Referring to Figs. 1 and 2, a preferred embodiment of a powder box in the present invention includes a housing 1, a gear 2, and a containing part 3.

20 The housing 1 can be comprised of an upper part 11 and a lower part 12 joined to the upper part 11, and has an opening (not numbered) at one end, a gap 14 near to the opening, a pivotal post 15 located near to a middle of the gap 15 on an inner side, a stopping projection 17 next to the opening on the inner side, a guiding bar 16 substantially extending

along the whole length thereof on the inner side, two trenches (Fig. 5) formed along inner sides of two opposing vertical walls thereof, and supporting portions 13 (Figs. 1 and 5), which define lower sides of the trenches.

5       The gear 2 is arranged around the pivotal post 15 of the housing 1 at a central hole 21 thereof such that it projects outwards from the gap 14 of the housing 1, and can be rotated by a user of the present powder box.

      The containing part 3 has a holding room 31 for holding powder therein, two protrusions 32 formed along outer sides of two opposing  
10   vertical walls thereof, a rack 34 substantially extending along its whole length under the holding room 31, a trench 33 also substantially extending along its whole length under the holding room 31, and a stopping portion 35 at a rear end of the rack 34. The containing part 3 is connected with, and displaceable relative to the housing 1 with the  
15   trench 33 thereof fitting over the guiding bar 15 of the housing 1, and the protrusions 32, 32 respectively supported on the supporting portions 13, and with the rack 34 engaging the gear 2. Thus, the containing part 3 can be forced to project outwards from the opening of the housing 1 by means of operating the gear 2.

20       To use powder contained in the present powder box, the user first holds the housing 1 with one hand, and rotate the gear 2 with her thumb or fingers such that the containing part 3 is made to project outwards from the housing 1, and the powder shows. The stopping portion 35 will

come into contact with the stopping projection 17 for preventing the containing part 3 from separating from the housing 1 during the course of the containing part 3 projecting outwards from the housing 1, as shown in Fig. 6. And, the user rotates the gear 2 in the opposite direction  
5 for the containing part 3 to retreat to the housing 1 when she finishes making up.

From the above description, it can be easily understood that the powder box of the present invention is convenient to use because it takes single hand of the user to operate. And, the power box can satisfy  
10 consumers' desire for variety and novelty because the structure is new.

15

20